XX.—Descriptions of some new Coleoptera from Costa Rica. By C. J. GAHAN, M.A., Assistant, Zoological Department, British Museum.

MONSIEUR H. PITTIER DE FÁBREGA, Director of the Instituto Fisico-Geografico Nacional de Costa Rica, has forwarded to Dr. Günther two or three small collections of Coleoptera, which were for the most part made on the little-explored Pacific slope of that country. With the aid of the splendid collections of Central-American Coleoptera presented to the Museum by Messrs. F. D. Godman and O. Salvin it has not been difficult for me to identify the large majority of the species sent by M. Pittier; but there still remain a few forms which I have been unable to find in those collections and which do not seem to be referable to any described species. These I now describe: for one—an interesting species of Carabidæ—I have found it necessary to institute a new genus.

Carabidæ.

LEPTOTOMUS, gen. nov.

Somewhat ovate or elliptic in outline. Head with two setigerous punctures above each eye; clypeus with a seta near each of the antero-lateral angles; labrum emarginate, sex-setose along margin; scrobe of mandible devoid of setæ; mentum emarginate, without tooth; ligula ending in a free median chitinous process, at the sides of and beyond which project the membranous lateral lobes (paraglossæ), which are rounded at tip; second joint of labial palpi bisetose near its extremity. Pronotum with a rather long seta near each of the hind angles. Elytra rounded at apex, their surface covered with very fine close longitudinal and parallel striæ, almost microscopic in character; each elytron with a row of setigerous punctures along the outer margin. Fore tibiæ emarginate; first four joints of fore tarsi (3?) slightly expanded, subspinose underneath. Antennæ rather short, first three joints glabrous, the rest pubescent; first joint about equal in length to the second and third united; these joints subcylindrical; the joints from the fifth to the tenth each about as broad as long, the eleventh slightly longer but scarcely narrower than the tenth.

The short and ovate form of this genus suggest a position for it near *Barysomus* and *Bradybæus*.

Leptotomus Pittieri, sp. n.

Subovatus, rufo-brunneus; pronoto nitido, medio longitudinaliter impresso, lateribus paullo rotundatis. angulis anticis acutis, posticis subobtusis, margine basali leviter bisinuata; elytris longitudinaliter tenuissimeque striatis, utrisque serie marginali punctorum setigerorum.

Long. 6, lat. 3 mm.

Hab. Costa Rica, Buenos Aires (H. Pittier).

Short and somewhat ovate in form ; reddish brown in colour. Head and prothorax glossy. Elytra more opaque, but exhibiting a soft silky lustre in certain lights ; impressed with very fine and close-set longitudinal striæ, running parallel to one another, and only visible with the aid of a good lens or low power of the microscope ; each elytron has a row of rather widely separated setigerous punctures close to the outer margin.

Menidius vittatus, sp. n.

Capite prothoraceque ferrugineis, elytris flavo-testaceis, vittis nigris ornatis—una suturali, una submarginali et subsinuata, una ab suturali ad marginalem oblique transeunte, una per medium discum a basi ad fasciam obliquam descendente.

Long. 7, lat. $2\frac{1}{2}$ mm.

Hab. Costa Rica, between Mata de lana and Rodeo, on the Pacific side.

This species has a close resemblance to *M. circumseptus*, Bates, but the sutural vitta extends right up to the scutellum, and there stops, instead of bifurcating and circling round the base of each elytron; there is, in addition to the submarginal black line, another which runs along the middle of each elytron from the base as far as the oblique fascia which joins the sutural with the submarginal vitta; the latter is somewhat removed from the margin in its anterior half, but beyond the middle, where the oblique fascia joins it, bends downwards and approaches the margin much more closely; at the junction of the oblique fascia with the sutural vitta at about the beginning of its posterior third there is a slightly expanded rhomboidal black area.

The prothorax is transversely strigose above, and is impressed with a median longitudinal groove.

Scarabæidæ.

Copris costaricensis, sp. n.

Oblongus; clypeo antice leviter emarginato; thoracis angulis anticis

acutis postice sinuatis; elytris fortiter punctato-striatis, punctis approximatis. (\mathcal{J}) Cornu capitis erecto, vix recurvo; thorace quadridentato, dentibus mediis sulco usque ad basin prolongato et dense fortiterque punctato separatis; foveolis lateralibus et depressionibus inter dentes medios lateralesque fortiter denseque punctatis. (\mathcal{Q}) Tuberculo frontali brevi, apice leviter emarginato; thorace antice dense punctato.

Long. 14-15 mm.

Hab. Costa Rica, San Francisco de Guadalupe, alt. 1200 m. (H. Pittier).

In having an acute, subdentate, antero-lateral angle to the prothorax, followed by a slight sinuation or obliquity of the margin, this species resembles *C. Sallei*, Har., and *C. Rebouchei*, Har.; from both it is distinguished by the more thickly and distinctly punctured mid-dorsal furrow of the prothorax, and by having the sides of the prothorax, from the lateral fovea up to the anterior margin, and the broad channels between the median and lateral teeth also thickly and strongly punctured in the male.

Bates has, in the 'Biologia Centrali-Americana,' recorded only two species of *Copris* from as far south as Costa Rica. These two—*C. incertus*, Say, and *C. armatus*, Har.—range northwards to Mexico. On examining the examples which Bates has placed together in the latter species, I have noticed that there is a rather marked difference in the punctuation of the male prothorax. In the Mexican examples the anterior part of the prothorax is distinctly punctured, with the punctures rather closely placed, but with evident intervals between them; in the other examples the surface of the front part of the prothorax is just as distinctly asperate. In the examples from Costa Rica there is a further difference, in that the elytra are much more feebly punctured along the striæ. It is possible, however, that with much larger series these differences would become less apparent.

Cerambycidæ.

Holonotus sternalis, sp. n.

Niger; elytris brunnescenti-testaceis, postice piceis; pronoto medio valde denseque punctato, versus latera crebrius rugoso-punctato; elytris dense fortiterque punctatis; mesosterno grosse tuberculato, ad apicem lateraliter compresso et cariniformi; antennis brevibus, prothoracis basin paullo superantibus.

Q. Long. 25, lat. $9\frac{1}{2}$ mm.

Hab. Costa Rica, Cerro de la Voltea (H. Pittier). Black, with the elytra almost entirely of a reddish-brown colour, a narrow space bordering the posterior margin being somewhat black. Pronotum (with the exception of a narrow median space extending for a short distance from a little in front of the base) strongly and thickly punctured, especially towards the sides, where the punctures are crowded together to form a rugose surface; sides subparallel or very slightly diverging for about one third of their length from the base, thence rather strongly converging to the anterior border. Elytra strongly and rather closely punctured; posterior margin rounded and denticulate, with a slightly larger tooth on each side where it joins the lateral margins. Mesosternum projecting as a strong tubercle which is laterally compressed, and at the tip smooth and keel-like.

This species may be distinguished from H. minor, Bates, which appears to be the most nearly allied form, by the shortness of the female antennæ, which extend only a very short distance beyond the hind margin of the pronotum, and by the prominence of the mesosternum, which, instead of fitting evenly into the emargination of the prosternum, projects somewhat below it. The pronotum also is more angulate at the sides and is more strongly and somewhat less closely punctured on the middle of its surface.

Callichroma Batesi, sp. n.

C. cosmica, Bates, Trans. Ent. Soc. 1872, p. 186.

Viridi-metallica, supra atro-viridis; pronoti vitta mediana, elytrorum sutura et vitta angusta utrinque viridi-nitidis, subglabris; prothorace utrinque fortiter acuteque tuberculato; corpore subtus viridi-nitido, vix pubescente; antennis pedibusque nigris, femoribus anticis intermediisque (basi exceptis) testaceis.

Hab. Nicaragua, Chontales (Belt); Costa Rica, Guanacaste (H. Pittier).

This species was determined by Bates to be the C. cosmica of White; but in the latter species the prothorax has a blunt tubercle on each side, which is feebly developed in comparison with the strong and spine-like tubercle occupying the same position in the present species. In C. cosmica the underside has a distinct, though thin, silvery-grey pubescence, which is easily seen in certain lights, and the lateral vitta of each elytron is reduced to a narrow streak near the base. In C. Batesi the underside of the body is almost impubescent, and the lateral vitta of each elytron extends as a distinct bright band from the shoulder as far as the apex.

Oncideres Pittieri, sp. n.

O. amputatori affinis; prothorace utrinque pone medium tuberculo nigro-nitido vix elevato, supra maculis tribus nigro-nitidis in serie transverso ante medium positis; elytris fulvo-maculatis, utrinque plaga magna elongata supra dilacerata, alba, basi dense nigro-nitido-granulatis, disco fere usque medium minus dense sed evidenter granulatis; corpore subtus, præcipue versus latera, prothoracisque lateribus albescentibus; segmentis abdominis postice fulvis. Q.

Long. 23, lat. $8\frac{3}{4}$ mm.

Hab. Costa Rica, savannahs and forests of Limon, facing the Pacific (*H. Pittier*).

From O. amputator, Fabr., O. putator, Thoms., and other allied forms this species is to be distinguished by the somewhat larger and more closely placed shining granules on the base of the elytra and by the extension of these granules on the dorsal region almost up to the middle. The long white patch on the side of each elytron is also characteristic; this reaches the margin of the elytron on its outer side, while its inner border is very irregular and is broken by one large gap, which divides the patch into a larger anterior and a smaller posterior portion; near its anterior end, which lies a little behind the shoulder, a few isolated black granules are to be seen. The pubescence on the underside of the body is greyish white, distinctly white and rather dense on the sides of the prothorax and mid and hind breast. The abdominal segments are fulvous towards their hind borders.

Amphionycha ventralis, sp. n.

Capite testaceo, flavo-pubescente; prothorace albo-pubescente, supra prope basin infuscatis; elytris nigris, dense punctatis, griseo tenuiter pubescentibus, utrinque carinatis; corpore subtus nigrofuscis et testaceis, segmentis duobus ultimis abdominis dense flavo-pubescentibus, coxis femoribusque pallide testaceis, tibiis tarsisque fuscis; antennis subtus sparse ciliatis, articulis quarto, quinto et sexti basi testaceis.

Long. 11, lat. $3\frac{1}{2}$ mm.

Hab. Costa Rica, Pacific side, between Mata de lana and Rodeo (H. Pittier).

Head testaceous, with a dense yellowish pubescence above. Prothorax with the basal margin turned slightly outwards, with a dense whitish pubescence, except near the base on the upper surface, where it is somewhat blackish. Elytra black, with a thinner dark grey pubescence, which does not entirely conceal the rather strong and closely placed punctures. Antennæ rather slender, sparsely ciliate underneath, dark brown, with the fourth and fifth joints and proximal half of sixth testaceous; the third joint, which is also very narrowly testaceous at the base, is about equal in length to the first and second taken together and is a little longer than the fourth. The last two abdominal segments are covered with a dense pale yellow pubescence, the rest of the underside being of a fuscous or dark reddish colour. The coxæ and femora are pale testaceous, the tibiæ and tarsi dark brown.

This species has a close superficial resemblance to *Isomerida picticornis*, Bates, but may be distinguished, *inter alia*, by the slenderer appearance of the antennæ, which are only sparsely ciliated and without the thick fringe which is present on the basal joints of the latter species.

The resemblances that hold between different species, even of distinct genera, in this group seem to be accounted for by their common mimicry of some forms of Lampyridæ and other Malacoderms.

XXI.—Notes on the Thelyphonidæ contained in the Collection of the British Museum. By R. I. Рососк, of the British Museum (Natural History).

[Plate II.]

Synopsis of the Genera of Thelyphonidæ.

- a. The anal segment without ommatoids; the carapace angularly pointed in front and not furnished either with cephalic keels or with a ridge between the median eyes.
- b. The anal segment bearing one or two ommatoids on each side; carapace bluntly rounded in front.
 - a¹. Carapace not furnished on each side with a keel running forward from the lateral eyes; no distinct ridge between the median eyes.

 - b². Coxal apophysis of chela unarmed (cf. secondary sexual characters of male).....

Thelyphonellus, g. nov. Type amazonicus (Butl.).

Labochirus, g. nov. Type proboscideus (Butl.).

Hypoctonus, Thorell. Type formosus (Butl.).